

**"PATENT"****IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Appl. No. : 09/879,448 Confirmation No.: 3553  
Applicant : Robert E. MIGLIORINI *et al.*  
Filed : June 12, 2001  
TC/A.U. : 1712  
Title: : "Method For Preparing Scalable Films With Siloxane Additives"  
Examiner : Christopher M. KEEHAN  
Docket No. : 2001B056  
Customer No. : 23455 Date: September 22, 2003

Mail Stop Non-Fee Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**DECLARATION UNDER 37 CFR 1.132**

I, Robert A. Migliorini, state the following:

1. I am one of the inventors for the above-referenced patent application.

2. I have worked in the Films Division of ExxonMobil Chemical Corporation (formerly Mobil Oil Corporation) for more than sixteen (16) years and have held a variety of positions in the research and development and manufacturing groups. Over the past three (3) years, I have worked in the manufacturing group and my current title is Plant Manager. I have extensive knowledge in the development and manufacture of thermoplastic films and the polymeric materials that are used to form such films. I have a bachelors degree in Chemical Engineering from Tufts University and a masters degree in materials engineering from Rochester Institute of Technology and I have taken a number of courses relating to thermoplastic film technology.

U.S.S.N. 09/879,448

Atty. Docket No.: 2001B056

Declaration Under 37 CFR 1.132

Reply to Office Action of May 21, 2003

Page 2 of 3

---

3. Peiffer et al. (European Patent 0 665 101 A1) states that the viscosity of suitable silicone oils for use in their films lies in the range of 5000-1,000,000 mm<sup>2</sup>/sec, preferably in the range of 10,000-100,000 mm<sup>2</sup>/sec. However, at the time the Peiffer et al. application was filed, January 29, 1994, silicone oils having a viscosity of 1,000,000 mm<sup>2</sup>/sec were not available. In particular, polymerization techniques were not available by which to produce silicone oils at such high viscosities. At that time, the greatest viscosity of silicone oils that could have been achieved was about 350,000 mm<sup>2</sup>/sec. Accordingly, a skilled artisan reading Peiffer et al. would not have taken the disclosure of silicone oils greater than about 350,000 mm<sup>2</sup>/sec seriously.

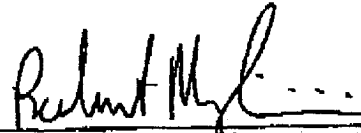
4. A key feature of the present invention is that after processing, the silicone additives from the tie layer migrate to the surface of the skin layer. Once on the surface of the skin layer, silicone provides desirable properties, such as a reduction in the coefficient of friction. If the silicone additives are too viscous, then the silicone additives either do not migrate to the surface of the skin layer, or migrate too slowly to be of practical use. At the time of our invention, the rate of migration of the silicone additives with viscosities of over 1,000,000 mm<sup>2</sup>/sec would have been thought to be too slow, or virtually nonexistent, to allow for effective migration of the silicone to the skin layer.

Also, I would not have predicted that a highly viscous silicone additive (greater than 1,000,000 mm<sup>2</sup>/sec) would provide superior results compared to a low viscosity silicone oil (less than 100,000 mm<sup>2</sup>/sec). It is generally recognized in the art that an additive for imparting improved slip properties to polyolefin films more effectively migrates through the amorphous regions of the polymer matrix to the polymer surface at lower viscosity levels of the additive. We have discovered that contrary to this general proposition, silicone additive viscosities greater than 1,000,000 mm<sup>2</sup>/sec are preferred, and that silicone additive viscosities greater than 10,000,000 mm<sup>2</sup>/sec are even more preferable.

USSN: 09/879,448  
Atty. Docket No.: 2001B056  
Declaration Under 37 CFR 1.132  
Reply to Office Action of May 21, 2003  
Page 3 of 3

5. I hereby declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true. Further that these statements were made with the knowledge that willfully false statements, and the like, so made are punishable by fine or imprisonment or both under Section 1001 of Title 18 of the United States Code, and that such willfully false statements may jeopardize the validity of the application of any patent issued thereon.

Respectfully submitted,



Robert A. Migliorini

Date: September 22, 2003

OFFICIAL

RECEIVED  
CENTRAL FAX CENTER

SEP 23 2003